WHAT IS CLAIMED IS:

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- 1. A liquid medicine infusion apparatus for infusing a liquid medicine comprising:
- (a) a liquid medicine pressurizing/supplying means for exerting pressure on a liquid medicine and causing the liquid medicine to flow through a first passage;
- (b) a secondary liquid medicine pressurizing means which is connected in liquid communication with the liquid medicine pressurizing/supplying means by said first passage and which is sized to receive an increment of liquid medicine from the liquid medicine pressurizing/supplying means and which exerts a pressure on the liquid medicine that is lower than the pressure exerted on the liquid medicine by the liquid medicine pressurizing/supplying means;
- (c) upstream opening/closing means arranged in the first passage, for opening and closing the liquid communication state between the liquid medicine pressurizing/supplying means and the secondary liquid medicine pressurizing means;
- (d) downstream opening/closing means arranged in a second passage connected to and provided downstream of the secondary pressurizing means; and
- (e) control means for controlling the opening/closing timing of the upstream opening/closing means and of the downstream opening/closing means.

- 2. The liquid medicine infusion apparatus according to claim 1, wherein means for pressurizing liquid medicine of the liquid medicine pressurizing/supplying means is a rubber elastic body.
- 3. The liquid medicine infusion apparatus according to claim
 1, wherein means for pressurizing liquid medicine of the liquid
 medicine pressurizing/supplying means is a spring.
- The liquid medicine infusion apparatus according to claim
 the liquid medicine of the liquid medicine pressurizing/supplying means is air pressure.
 - 5. The liquid medicine infusion apparatus according to claim 1, wherein means for pressurizing liquid medicine of the secondary liquid medicine pressurizing means is a rubber elastic body.

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- 6. The liquid medicine infusion apparatus according to claim 1, wherein means for pressurizing liquid medicine of the secondary liquid medicine pressurizing means is a spring.
- 7. The liquid medicine infusion apparatus according to claim 1, wherein means for pressurizing liquid medicine of the secondary liquid medicine pressurizing means is air pressure.
- 8. The liquid medicine infusion apparatus according to claim 1, wherein the upstream opening/closing means and the downstream

opening/closing means comprise electromagnetic valves.

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- 9. The liquid medicine infusion apparatus according to claim 1, wherein the upstream opening/closing means and the downstream opening/closing means comprise clamps.
- 10. The liquid medicine infusion apparatus according to claim 1, wherein the upstream opening/closing means and the downstream opening/closing means are comprised of an integrated unit using a stopcock.